

**Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A processing apparatus comprising:

a process chamber made of metal for applying a process to an object to be processed placed in the process chamber by supplying a process gas to the object to be processed;

a bottom plate made of a metal ceramics composite and fixed to said process chamber so as to form a reduced pressure space in said process chamber;

a placement stage made of ceramics or a metal matrix composite located inside the process chamber so that the object to be processed is placed thereon;

a heating device incorporated into the placement stage; and

~~a support member made of a metal matrix composite for supporting said placement stage; and~~

a seal member located between ~~said support member and a wall surface of~~ said process chamber and said bottom plate;

~~wherein said support member is formed as a part of a wall of said process chamber~~ said placement stage is directly joined to a first part of said bottom plate, which first part is smaller than said bottom plate, and said seal member is located between said process chamber and a second part of said bottom plate other than said first part.

2. (currently amended) The processing apparatus as claimed in claim 1, wherein said ~~support member~~ bottom plate is joined to a surface of said placement stage opposite to a surface on which the object to be processed in placed.

3. (currently amended) The processing apparatus as claimed in claim 1, wherein said ~~support member~~ bottom plate has a substantially flat shape, and an entire surface of said placement stage opposite to a surface on which the object to be processed in placed is joined to a flat surface of said ~~support member~~ bottom plate.

4-5. (canceled)

6. (currently amended) The processing apparatus as claimed in claim 9, wherein said cooling mechanism includes a coolant passage formed in said ~~support member~~ bottom plate.

7. (previously presented) The processing apparatus as claimed in claim 9, wherein said cooling mechanism includes a coolant passage formed in a wall of said process chamber.

8. (currently amended) The processing apparatus as claimed in claim 1, wherein said ~~support member~~ bottom plate is joined to said placement stage by blazing.

9. (previously presented) The processing apparatus as claimed in claim 1, further comprising:

a cooling mechanism located in the vicinity of said seal member so as to cool said seal member.

10. (currently amended) The processing apparatus as claimed in claim 1, wherein said placement stage is joined to said ~~support member~~ bottom plate by interposing a powder of titanium therebetween and heating at a temperature of 700°C to 900°C in a nitrogen atmosphere.